

AP20 Rec'd PCT/PTO 09 JUN 2006

Sequence Listing

SEQ ID NO. 1 - The full-length nucleotide sequence of the spike (S) gene of SARS CoV, clone 12 of 2774 strain  
RNA linear

ORGANISM: SARS coronavirus 2774 strain

Viruses; ssRNA positive-strand viruses, no DNA stage;  
Nidovirales; Coronaviridae; Coronavirus.

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 cttgctgcaa 3710 3711 gtttgatgag gatgactctg agccagttct caagggtgtc aaattacatt  
 acaca 3765

SEQ ID NO. 2 - The full-length amino acid sequence of the spike (S)  
 gene of SARS CoV, clone 12 of 2774 strain  
 Amino acid

1 MFIFLLFLTL TSGSDLRCT TFDDVQAPNY TQHTSSMRGV YYPDEIFRSD TLYLTQDLSL  
 PFYSNVTGFH 70  
 71 TINHTFGNPV IPFKDGIYFA ATEKSNVVRG WVGSTMNK SQSVIIINNS TNVVIRACNF  
 ELCDNPFFAV 140  
 141 SKPMGTQHT MIFDNAFNCT FEYISDAFSL DVSEKSGNFK HLREFVFNK DGFLYVYKG  
 QPIDVVRDLP 210  
 211 SGFNTLKPIF KLPLGINITN FRILTAFSP AQDIWGSAA AYFVGDLKPT TFMLKYDENG  
 TITDAVDCSQ 280  
 281 NPLAELKCSV KSFEIDKGIY QTSNFRVPS GDVVRFPNIT NLCPFGEVFN ATKFPSVYAW  
 ERKKISNCVA 350 351 DYSLYNSTV FSTFKCYGVS ATKLNDLCFS NVYADSEVVK GDDVRQIAPG  
 QTGVIADYNY KLPDDFMGCV 420 421 LAWNTRNIDA TSTGNYNYKY RYLRHGKLRP FERDISNVFP  
 SPDGKPCTPP ALNCYWPLND YGFYTTTGIG 490 491 YQPYRVVLS FELLNAPATV CGPKLSTDLI  
 KNQCVNFEN GLTGTGVLTP SSKRFQPFQ FGRDVSDFTD 560 561 SVRDPKTSEI LDISPCSF  
 GGVSVVITPGTNA SSEVAVLYQD VNCTDVSTAI HADQLTPAWR IYSTGNVVFQ 630 631 TQAGCLIGAE  
 HVDTSYECDI PIGAGICASY HTVSLLRSTS QKSIVAYTMS LGADSSIAYS NNTIAIPTNF 700 701  
 SISITTEVMP VSMKTSVDC NMYICGDSTE CANLLQYGS FCTQLNRALS GIAAEQDRNT REVFAQVKQM  
 770 771 YKTPTLKYFG GFNFSQLPD PLKPTKRSFI EDLLENKVTL ADAGFMKQYG ECLGDINARD

LICAQKFENGL 840 841 TVLPPLLTDD MIAAYTAALV SGTATAGWTF GAGAALQIPF AMQMAYRFNG  
 IGVTONVLYE NQKQIANQFN 910 911 KAISIQIESL TTTSTALGKL QDVVNQNAQA LNTLVKQLSS  
 NFGAISSVLN DILSRLDKVE AEVQIDRLIT 980 981 GRLQSLQTYV TQQLIRAAEI RASANLAATK  
 MSECVLGQSK RVDFCGKGYH LMSFPQAAPH GVVFLHVTYA 1050 1051 PSQERNFTTA PAICHEGKAY  
 FPREGVVFVN GTSWFITQRN FFSPQIITTD NTFVSGNCDV VIGIINNTVY 1120  
 1121 DPLQPELDSF KEELDKYFKN HTSPDVLGD ISGINASVVN IQKEIDRLNE VAKNLNESLI  
 DLQELGKYEQ 1190 1191 YIKWPWYVWL GFIAGLIAIV MVTILLCCMT SCCSCLKGAC SCGSCCKFDE  
 DDSEPVKGV KLHYT 1255

SEQ ID NO. 3 - The nucleotide sequence of SΔ10 fragment of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

3087 taccacctta tgtccttccc acaagcagcc ccgcatggtg ttgtcttctt acatgtcacg  
 tatgcgccat 3157 3158 cccaggagag gaacttcacc acagcgccag caatttgta tgaaggcaaa  
 gcatacttcc ctcgtgaagg 3227 3228 tgtttttgtg tttaatggca cttcttggtt tattacacag  
 aggaacttct tttctccaca aataattact 3297 3298 acagacaata catttgtctc aggaaattgt  
 gatgtcgta ttggcatcat taacaacaca gtttatgata 3367 3368 ctctgcaacc tgagcttgac  
 tcattcaaag aagagctgga caagtacttc aaaaatcata catcaccaga 3437 3438 tgttgatctt  
 ggcgacattt caggcattaa cgcttctgtc gtcaacattc aaaaagaaat tgaccgcctc 3507 3508  
 aatgaggtcg ctaaaaattt aatgaatca ctcattgacc ttcaagaatt gggaaaatat gagcaatata  
 3577  
 3578 tta  
 3581

SEQ ID NO. 4 - The amino acid sequence of SΔ10 fragment of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

1029 YHLSFPQAA PHGVVFLHVT YAPSQERNFT TAPAICHEGK AYFPREGVVF FNGTSWFITQ  
 RNFFSPQIIT 1099 1100 TDNTFVSGNC DVVIGIINNT VYDPLQPELD SFKEELDKYF KNHTSPDVL  
 GDISGINASV VNIQKEIDRL 1169 1170 NEVAKNLNES LIDLQELGKY EQYI  
 1192

SEQ ID NO. 5 - The amino acid sequence of the neutralizing fragment of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

1055 RNFT TAPAICHEGK AYFPREGVVF FNGTSWFITQ RNFFSPQIIT TDNTFVSGNC DVVIGIINNT  
 VYDPLQ 1620 1621 PELDSFKEELDKYF KNHTSPDVL GDISGINASV VNIQKEIDRL NEVAKNLNES  
 LIDLQELGKY EQYI 1192

SEQ ID NO. 6 - The amino acid sequence of SΔ11 fragment of the spike (S) gene of SARS CoV, clone 12 of 2774 strain

1 MFIFLLFLTL TSGSOLDRCT TFDDVQAPNY TQHTSSMRGV YYPDEIFRSD TLYLTQDLSL  
 PFYSNVTGFH 70  
 71 TINHTFGNPV IPFKDGIYFA ATEKSNVVRG WVFSGTMNNK SQSVIIINNS TNVVIRACNF  
 ELCDNPFFAV 140  
 141 SKPMGTQHT MIFDNAFNCT FEYISDAFSL DVSEKSGNFK HREFVFNK DGFLYVYKGY  
 QPIDVVRDLP 210

211 SGFNTLKPIF KLPLGINITN FRAILTAFSP AQDIWGTSAA AYFVGDLKPT TFMLKYDENG  
TITDAVDCSQ 280

281 NPLAELKCSV KSFEIDKGIY QTSNFRVVPV GDVVRFPNIT NLCPFGEVFN ATKFPSVYAW  
ERKKISNCVA 350 351 DYSVLYNSTV FSTFKCYGVS ATKLNDLCFS NVYADSFVVK GDDVRQIAPG  
QTGVIADYNY KLPDDFMGCV 420 421 LAWNTRNIDA TSTGNVNYKY RYLRHGKLRP FERDISNVPF  
SPDGKPCTPP ALNCYWPLND YGFYTTTGIG 490 491 YQPYRVVVLV FELLNAPATV CGPKLSTDLI  
KNQCVNFNEN GLTGTGVLTP SSKRFQPFQO FGRDVSDFTD 560 561 SVRDPKTSEI LDISPCSFGG  
VSVITPGTNA SSEVAVLYQD VNCTDVSTAI HADQLTPAWR IYSTGNNVFQ 630 631 TQAGCLIGAE  
HVDTSYECDI PIGAGICASY HTVSLLRSTS QKSIVAYTMS LGADSSIAYS NNTIAIPTNF 700 701  
SISITTEVMP VSMAKTSVDC NMYICGDSTE CANLLQYGS FCTQLNRALS GIAAEQDRNT REVFAQVKQM  
770 771 YKTPTLKYFG GFNFSQILPD PLKPTKRSFI EDLLFNKVTI ADAGFMKQYG ECLGDINARD  
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NFGAISSVLN DILSRDLKVE AEVQIDRLIT 980 981 GRLQSLQTYV TQQLIRAAEI RASANLAATK  
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1121 DPLQPELDSF KE

1132